JETP Letters 2010 vol.92 N2, pages 102-106

Electron paramagnetic resonance detection of the giant concentration of nitrogen vacancy defects in sintered detonation nanodiamonds

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Abstract

A giant concentration of nitrogen vacancy defects has been revealed by the electron paramagnetic resonance (EPR) method in a detonation nanodiamond sintered at high pressure and temperature. A high coherence of the electron spins at room temperature has been observed and the angular dependences of the EPR spectra indicate the complete orientation of the diamond system. © 2010 Pleiades Publishing, Ltd.

http://dx.doi.org/10.1134/S0021364010140067